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**Appendix I**  
**Arkwright Summit Wind Farm**  
**Economic and Fiscal Impact Study**

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# **ARKWRIGHT SUMMIT WIND FARM**

## **Economic and Fiscal Impact Study**

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**October 2008**



**camoin associates**  
ECONOMIC DEVELOPMENT

## EXECUTIVE SUMMARY

Arkwright Summit Wind Farm LLC (the “Company”), a wind energy company, is in the process of developing a wind farm in Chautauqua County, New York. This project will be located in the Towns of Arkwright and Pomfret. When complete, it will consist of 44 wind turbines with name plate capacity of 1.8 megawatt (MW). The wind farm will have a name plate capacity of up to 79.2 MW and produce approximately 208,000 MW hours per year, enough to meet the needs of over 34,500 New York households. The Arkwright Summit wind farm will also include 4 meteorological towers, access roads, a maintenance and operation building, electrical collection and communication systems, a substation facility and the associated point of interconnect switchyard.

Camoin Associates was hired to conduct a study of the economic and fiscal impacts of the Arkwright Summit wind farm project (“Project”) on Chautauqua County and Western New York in general. The Project consists of both a construction phase and a long term operation phase. The construction phase will employ between 125 and 200 people for approximately 9 months, 2/3 of which (or approximately 100) we anticipate will be from the Western New York labor market. The construction phase will have a temporary impact on the County since there will be additional employees in the area spending money on daily goods such as food and gasoline as well as spending on rental properties. The jobs and additional spending will circulate throughout the County’s economy creating additional indirect economic impacts.

The tables below summarize the findings of Camoin Associates of the economic impacts of the one time construction phase and long term operations phase of the Project on Chautauqua County.

Summary of One Time Impact of Construction			
	Direct	Indirect	Total
Employment During Construction from Western New York Labor Market	100	103	203
One Time Royalty Payments	\$559,016	\$531,065	\$1,090,081

Source: Company, Camoin Associates, EMSI

Summary of Annual Economic Impact			
	Direct	Indirect	Total
Employment During Operation	12	25	37
Annual Earnings	\$500,000	\$235,000	\$735,000
Annual Royalties	\$500,000	\$475,000	\$975,000

Source: Company, Camoin Associates, EMSI

Summary of Annual Fiscal Impacts of Operation	
Annual PILOT Payments	\$320,000
Annual Community Host Payments	\$320,000
Annual Additional Sale Tax Revenue	\$12,825
Annual Fire District Tax Payments	\$49,396

Source: Company

Note: PILOT and Community Host Payments are an estimate at this time

During the construction phase, the Project will create approximately 100 jobs in Western New York and around \$560,000 in initial construction payments to County landowners. The operations phase will create jobs for approximately 12 people with earnings of around \$500,000 and annual royalty payments of an estimated \$500,000 for landowners. All of these figures represent new economic activity in Chautauqua County.

This new economic activity will have spillover effects. During the construction phase an additional 103 jobs will be created along with over \$530,000 in earnings changes throughout Chautauqua County from spillover impacts of the initial payments to landowners. During operations the 12 employees hired for the long term operation of the Project will create an additional 25 jobs and generate an earnings increase of \$235,000. The royalty payments to landowners will also generate additional income and have a follow through effect of \$475,000.

In addition to the economic impacts of the project, there will be fiscal revenue benefits to local government in Chautauqua County. Increased revenue will include annual PILOT payments made by the Company, annual Community Host Payments made to the Town of Arkwright, increased sales tax revenue from employee spending, and additional payments to the fire district based on assessment.

With the initial royalty payments to landowners **the total one time impact of the Project on the Western New York, but centered in Chautauqua County is \$1,090,081 and 203 jobs**

Including the annual wage changes, the annual royalty payments, annual PILOT payments, annual community host payments, annual sales tax revenue, and annual fire district payments, **the total annual impact of the Project on Chautauqua County is \$2,412,221 and 37 jobs.**

#### EXISTING RESEARCH

Camoin Associates also used existing research to enhance this report by identifying the economic impact that other wind farm projects have had on communities around North America. With increased attention on alternative energy solutions, more communities are considering wind energy projects and they want to understand what the impact will be on their local economy. There have been numerous studies done on the economic and fiscal impact of wind farm projects in North America and Camoin Associates summarized a portion of this information as it relates to the Project.

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## INTRODUCTION

### PROJECT

Arkwright Summit Wind Farm LLC (the “Company”), a wind energy company, is in the process of developing a wind farm in Chautauqua County, New York. This project will be located in the Towns of Arkwright and Pomfret. When complete, it will consist of 44 wind turbines with name plate capacity of 1.8 megawatt (MW). The wind farm will have a name plate capacity of up to 79.2 MW and produce approximately 208,000 MW hours per year, enough to meet the needs of over 34,500 New York households. The Arkwright Summit wind farm will also include 4 meteorological towers, access roads, a maintenance and operation building, electrical collection and communication systems, a substation facility and the associated point of interconnect switchyard.

### ECONOMIC IMPACT

Camoin Associates was hired to conduct an economic and fiscal impact study of the Arkwright Summit wind farm project (“Project”) on the economy of Chautauqua County. Camoin Associates began by identifying the approximate future economic activity that the wind farm will generate in terms of number of employees and the wages they will be receiving. We then used an input-output model to estimate spillover effects that these jobs and wages will have on the County’s economy. These effects include those caused by the company making purchases in the local economy and by its employees spending their wages and salaries in Chautauqua County.

In addition to the wages they are paying their employees, the Company is working with the Chautauqua County Industrial Development Agency to create a payment-in-lieu of taxes program (PILOT) with involved taxing jurisdictions in Chautauqua County. We treat the PILOT as additional money into the community’s revenue stream which would not have occurred without the Project.

Finally, additional income will be paid to landowners within the project area who will be leasing their land for the wind turbines as well as allowing for setbacks and easements on their property for electrical equipment, access roads and wires.

Because the wages, benefits, PILOT payments and royalties will be coming from the Company, and would not otherwise come to the County, it is assumed that all of these activities represent “net new” economic activity to Chautauqua County.

The economic impact of the initial construction work was also reviewed. The direct economic impact of the construction phase can be difficult to quantify due to the transient and temporary nature of some construction workers. Although it is difficult to determine how many of the construction workers will reside within the County, it can be assumed that

approximately 2/3 of the construction work on the Project will be done by residents of the Western New York labor market. This assumption is used to determine the direct and indirect benefits that construction work will have on the Western New York regional economy.

## EXISTING RESEARCH

Camoin Associates also looked at past wind farm projects to bring into focus the economic impacts that other communities have seen after a project has been constructed and operating for a number of years. The existing research section of this report provides a supplement to the projections of the economic modeling software reported in this study. The case studies provide real life examples of the economic impact that wind energy projects have had on communities around the country.

## ECONOMIC IMPACTS

This study is intended to project the total new jobs, wages and business income resulting from the Project. The study also identifies the benefit to the County and Western New York in the form of the PILOT program and the added benefits to landowners in the form of lease and easement agreements.

An economic impact study measures the direct, indirect and induced effects of spending or investment on an economy's employment, wages and business activity. Direct effects represent employment and wages paid to employees of the Company as well as the payments made by the Company to landowners for lease agreements and to the taxing jurisdictions for PILOT and/or Community Host Agreements. The money spent by the Company on purchases of goods and services circulates through other industries and the sum of this recirculation of money accounts for the indirect effects. Finally, induced effects represent the impacts on all local industries caused by the expenditures of new household income from wages and payments made by the Company.

Camoin Associates estimated the impact of the Project's economic contribution to Chautauqua County by using EMSI, an economic modeling software package. EMSI allows the analyst to input the number of jobs to be created and reports the total impact to the study area economy. The modeling package also analyzes the economic impact that the additional jobs or earnings in one industry sector will have on other industry sectors in the study area. This provides insight on the big picture impact that one project can have on surrounding areas and differing sectors of the economy. By using this software, Camoin Associates was able to determine the long term and large scale effect that the Project will have on Chautauqua County and Western New York.

Also part of the economic impact analysis of the Project is the effect that the additional payments being made to the taxing jurisdictions and local residents will have. These additional sources of income for residents and the municipalities will circulate through the economy as current residents have more spending money and as the taxing jurisdictions redistribute the property tax burden to a larger tax base.

The analysis below estimates the economic impact of the proposed Project on the Chautauqua County economy. The multipliers are generated using EMSI and all impacts reflect the total impact to Chautauqua County unless otherwise indicated. Much of the input data was provided by the Company or through information gleaned from the Draft Environmental Impact Statement (DEIS).



### Employment and Wages - Construction Phase

The construction phase will require the employment of between 125 and 200 employees and last approximately 9 months. These employees may rent houses for the duration of construction work, they may commute to the site every day from outside the county or they may already live within Chautauqua County. These uncertainties require that Camoin Associates make the assumption that 2/3 of the construction workers, or approximately 100 employees, will come from the Western New York labor market. It is not certain that all the salaries being made within Chautauqua County will be spent within the County borders, but it is likely that a high percentage of the salaries that the construction workers will receive will be spent within Western New York on housing rentals, food, entertainment, and utilities. Although this assumption does not allow us to project the direct and indirect impact that the construction phase will have on the Chautauqua County economy specifically, we can discuss its impact on Western New York. Many of the impacts discussed later in this report, like PILOT agreements and landowner payments, are more specifically related to Chautauqua County.

Below is a table which shows the impact that the additional jobs, assumed to be approximately 100 from Western New York (*direct employment*), will have on Western New York's economy.

Impact of Construction Phase on Western New York	
Direct Employment	100
Multiplier	2.03
Indirect Employment	103
Total Employment	<b>203</b>

Source: Company, Camoin Associates, EMSI

The wages earned by the 100 local construction workers will be spent in Western New York on a variety of goods and services offered by local businesses including supermarkets, restaurants, gasoline stations and convenience stores. Additionally, portions of the construction inputs such as stone, concrete, and other equipment will be purchased or rented locally; these purchases add additional revenue for the local and regional economy. The increased revenue from spending of wages by employees, and spending on construction inputs will support the creation of additional jobs in the businesses where that money is spent. These additional jobs are called *indirect employment*. The 100 direct jobs will translate into an estimated 103 indirect jobs, shown in the above table.

### Employment and Wages- Long Term Operations

After construction, during the operations phase, the project will employ between 10 and 15 full time staff who all together will be paid approximately \$500,000 annually. For purposes of this report, it is assumed that 12 employees will be hired full time by the

Company for the long term maintenance and management of the wind farm. These 12 employees are the *direct employment* that will result from the Project.

The direct employees spend their wages locally thereby increasing the economic activity throughout the County. Economic activity will increase in multiple areas including real estate purchases, retail, food, entertainment and other activities creating more demand and new jobs throughout other sectors of the economy. The Company will also spend money locally on business operations for maintenance and management. The combined effect of spending by direct employees and by the Company will create additional jobs shown in the table below as *indirect employees*.

As shown in the table below, the 12 long term jobs added by the Company for management of the wind farm will support 37 positions throughout Chautauqua County. Additionally, the wages paid to Arkwright Summit employees will result in over \$730,000 in additional annual wages in Chautauqua County.

Summary of Long Term Impacts of Operations on County		
	Employment	Wages
Direct	12	\$500,000
Multiplier	3.13	1.47
Indirect	25	\$235,000
<b>Total</b>	<b>37</b>	<b>\$735,000</b>

Source: Company, Camoin Associates, EMSI

### PILOT and Community Host Agreement

The Company is in the process of negotiating with the Chautauqua County Industrial Development Agency a payment-in-lieu of taxes (PILOT) agreement and a Community Hosting agreement with the Town of Arkwright. While these negotiations are ongoing, the PILOT payments are estimated to be \$8,000 per MW, with \$320,000 going to the Town of Arkwright and \$320,000<sup>1</sup>. A PILOT payment requires that the Company will pay a fixed amount set forth in the PILOT; this payment is then distributed to the respective taxing jurisdictions based on an agreed upon formula. These payments to the school districts, towns, and county can be used as the jurisdictions see fit, but they have the potential to reduce tax rates for local residents or provide funding for infrastructure improvements. The fire district will not be part of the PILOT program, so they will receive taxes on the assessed value of the wind turbines at the tax rate of .949934 per \$1,000. Below is a table outlining the estimated annual payments to be made by the Company.

<sup>1</sup> Source: The Company; based on experiences at other wind farms throughout New York State Arkwright Summit Wind Farm

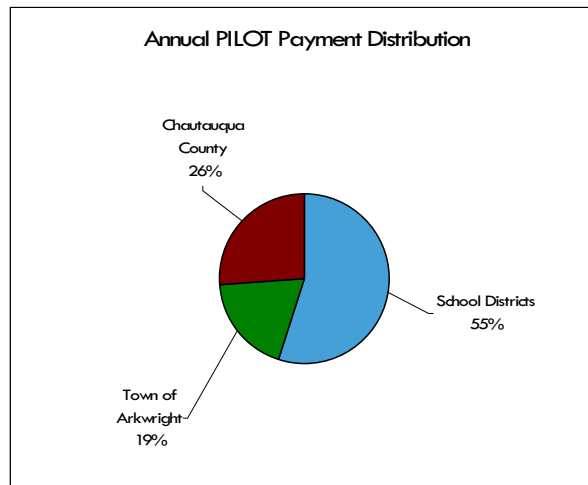
Annual Payments	
Community Host Payments to Town of Arkwright	\$320,000
PILOT Payments	\$320,000
Fire District Taxes	\$49,396
Total Payment from Company	\$689,396

Source: Company

Below is a break down of the estimated annual PILOT payments made by the Company to the local taxing jurisdictions. The PILOT program for this project has not been finalized, but most PILOT arrangements are based on the total PILOT sum, the percentage of turbines within each jurisdiction and the jurisdictions' respective taxing rates.

Annual PILOT Payments to the Taxing Jurisdictions			
School Districts	Town of Arkwright	Chautauqua County	Annual Total PILOT Payment
\$176,000.00	\$60,800.00	\$83,200.00	\$320,000.00

Source: Company, Camoin Associates



We treat these PILOT payments as money that the jurisdictions would otherwise have to levy on existing tax payers if the Project was not locating in Chautauqua County. Additionally, there will be an influx of payments through the PILOT program to the Towns with virtually no impact on the local transportation infrastructure. The Company will maintain all access roads which are required for the operation of the wind turbines as well as repair any public roads which are damaged during the construction phase. These improvements to the local roadways will reduce future improvement costs which the Towns would otherwise have faced.

## Royalty Payments

In order to install the 44 wind turbines in the Towns of Arkwright and the supporting facilities in Pomfret, the Company will reach agreements with landowners for their cooperation during construction, easement payments and lease agreements. There will be one time payments during the construction phase of the project as well as annual payments to landowners for the lease of their land during the operation phase of the project. The payments received by landowners are net new dollars that would not otherwise be in the local economy. This money will be spent by landowners on goods and services at local businesses. Local business will in turn re-spend the money they receive from landowners on business expenses and employee wages. This money will then get spent again by employees, and so on. The effect of these dollars circulating through the economy is captured in the *earnings multiplier*. Combining the direct money received by payments to landowners and the indirect impact captured in the earnings multiplier gives the total impact of royalty payments on the County economy.

### During Construction- Landowner payments

The Company will provide one time payments to landowners as a signing bonus as well as a temporary rental agreement for landowners involved with the construction phase. This influx of money will provide local residents with additional income and have a positive economic benefit for the County's economy. The one time payments to landowners will be approximately \$560,000.

Impact of One Time Payments to Landowners		
One time payment to landowners	Earnings Multiplier	Impact on County
\$559,016	\$1.95	\$1,090,081

Source: Company, Camoin Associates, EMSI

The total impact of the one time payments to landowners will be approximately \$1.1 million as the additional money circulates within the local economy creating additional jobs and wages.

### During Operation- Landowner Payments

The landowners who will be leasing their land will reach agreements with the Company to receive annual payments based on number of turbines and the MW produced. The Company will also work with residents on necessary easements needed for wire placement, setbacks, access road placement and other required equipment. These agreements will total approximately \$500,000 a year.

The total amount of payments to local landowners in Chautauqua County is assumed to be net new money into the local economy and will increase local discretionary spending power.

The additional money to the land owners will increase their spending which will increase demand for other goods and therefore impact jobs, wages and sales throughout the County. Since many of these wind turbines will be located on agricultural land, these payments may help local farmers stay in business, helping to stabilize an otherwise unstable industry and local economy. The table below outlines the multiplier effect that the additional \$500,000 will have on the County’s economy.

<b>Annual Impact of Royalty Payments on County Wages</b>	
Total Royalty Payments	\$500,000
Earnings Multiplier	1.95
<b>Wages Impact on County</b>	<b>\$975,000</b>

Source: EMSI

### Sales Tax Revenues

Sales tax for Chautauqua County is at 3.75% and is a significant source of income for the County. With the additional earnings and payments to employees and landowners, it can be assumed that the local sales tax revenue will increase due to increased spending. The additional earnings throughout the County due to the employment at Arkwright Summit is projected at over \$700,000 and the additional earnings throughout the County due to the landowner agreements is projected at \$975,000. These new sources of income for residents will increase their spending capability and add additional revenue to the County. The table below summarizes the additional money that is coming into the County.

<b>Annual Economic Impact on County Residents</b>	
County Wage Increase from Employment	\$735,000
County Wage Increase from Royalties	\$975,000
<b>Total New Money to County Residents</b>	<b>\$1,710,000</b>

Source: Company, Camoin Associates, EMSI

Since an increasing proportion of people are purchasing goods over the internet and traveling, it is not appropriate to assume that all of the new money introduced to the County will be spent within Chautauqua County. It also is not appropriate to project that all the money spent within the County will be subject to the county sales tax. It can be assumed that 80% of new money will be spent in the County; of that 80%, it is assumed that at least 25% will be subject to sales tax (purchasing items such as clothing, food, furniture, etc.). The table below outlines the sales tax revenue to be gained annually from the proposed development of the Project.

New Sales Tax in Chautauqua County				
Total Annual New Money to County	Amount Spent In County	Amount taxable	County Sales Tax	Annual Additional County Revenue
\$1,710,000	\$1,368,000	\$342,000	3.75%	<b>\$12,825</b>

Source: Company, Camoin Associates

With the increased wages from employment at Arkwright Summit and the royalty payments to landowners, the annual additional sales tax revenue for the County is a little more than \$12,800.

## EXISTING RESEARCH

As more and more communities are faced with the prospect of a wind farm locating within their jurisdiction, they are looking to research being done on the impact that these wind farms have on their local economy. Most of the research uses a combination of case studies and input-output models to demonstrate the projected effect that the wind farms have on the regional economy. Overall, the research suggests that the impact is positive in terms of creating jobs, increasing wages, protecting open space resources and maintaining property values.

### Property Value Protection

Some residents fear that visible wind turbines will decrease their property value. Past studies have not shown this to be the case and that the wind turbines in fact have no statistically significant impact on the assessed value of the residential properties. Assessors in counties which have had wind projects constructed report that even residential properties within sight of one or more wind turbines have not had their property values adversely affected. (ECONorthwest, 2002).

In a report completed for Noble Environmental Power, the real estate consulting report found “that the existence of a wind farm does not appear to have any impact on surrounding property values as a whole.” As part of the research, the consultant analyzed recent home sales and re-sales near the Madison Wind Farm in Madison County, NY. They found that of the 46 recent re-sales, 42 increased in price, 3 decreased and 1 stayed the same. For this research they performed similar analysis on the re-sales near two other wind farms in New York, Fenner Wind Farm in Madison County and Wethersfield Wind Farm in Wyoming County, and found similar results. The research states that there is “no stigma attached to the project due to the continual sale and resale of properties near the project which have appreciated at similar rates to the rest of the county.” (Klauk, Lloyd & Wilhem Inc., 2007).

Another report written for the Marble River Wind Farm in Clinton County indicates similar findings. The real estate analysis reports that the development of the wind farm will have no impact on the surrounding undeveloped land and that developed property continued to appreciate in many cases after the announcement of the project. It was also indicated that the sale of the land or property surrounding the wind farm project would not be more difficult due to the project’s existence. (Cushman & Wakefield, 2006).

Another analysis was performed by the Renewable Energy Policy Project in 2003 and reported on the sale of homes within sight of the wind turbines as compared to homes in the region without a view of the windmill. This research considered data from across the country. The analysis included two case studies of wind farms in Madison County including Madison and Fenner. The data shows that in both of these case studies, the rate of change in average “viewshed” (within sight of the windmills) properties’ sales price is greater than

the rate of change of the comparable sales in the larger study area. This research found that there is no real support for the claim that windmills will decrease property values. (Renewable Energy Policy Project, 2003)

Finally, a report written by Ben Hoen called *Impacts of Windmill Visibility on Property Values in Madison County, NY* looked at the sale of 280 single family homes around the Fenner Wind Farm. Included in the research was the degree to which the windmill was visible on the property, for example if the entire tower and rotors were visible or just the tip of the rotor as it rotates. Looking into the affect of the degree of visibility was something that had not been analyzed previously. Again, Hoen's research found no evidence that windmills create an adverse effect on property values. (Hoen, 2006)

### **Local Benefits**

Research done on other wind farm projects around the country show direct and indirect impacts on the local economy in both a quantitative and anecdotal fashion. In Sherman County, Oregon, the local establishments reported seeing a real increase in the number of patrons at their cafes, supermarkets and hotels following the construction of a wind farm. Most businesses said they saw the largest increase in activity during the construction phase, but that even during the on-going operations of the wind farm there were additional people visiting their establishments, including tourists. (Renewable Northwest Project, 2004).

There are also clear benefits related to royalty payments earned by landowners and the support of marginal family farms (Center for Governmental Research, 2007) as well as the benefits of an increased tax base to ease the property tax burden on existing residents. For example, in Clinton County, NY the Town of Clinton was able to cut the town land taxes in half over a few years, and is expecting to be able to remove all land taxes this coming year. This decrease in taxes for residents was made possible after a wind farm was developed that included a PILOT payments to the local jurisdictions. The Town of Ellenburg in Clinton County was also part of the PILOT payments for this wind project, and they were able to reduce their taxes for town residents as well.

### **Resource Protection**

The wind farm also provides additional income to farmers which help them maintain their land in agricultural production. Farmers report that the turbines themselves have only a minimal impact on their farming operations and can provide a stable complement to their current income, since the turbines are impervious to weather, pests and commodity fluctuation. (Renewable Northwest Project, 2004)

Even if the land is not currently under cultivation, the protection of open space is important to the regional economy. Open space resources provide benefits in terms of protecting biodiversity, reducing water treatment costs and an overall positive quality of life.



## Opportunity Costs

“Opportunity cost” is a concept from the field of economics that focuses on the implicit cost of choosing one alternative over another. The concept assumes that the options are to some extent mutually exclusive and that the benefits of one alternative must be forgone (in whole or in part) in order to pursue a certain action.

In the case of a new project or development, the resources that might be contemplated in the discussion of opportunity cost include physical space (square footage of building or acres of land), labor force, natural resources, existing infrastructure limitations and nonrenewable goods.

A clear example of opportunity cost, in the context of economic development, would be one in which the last parcel of available and suitable industrially-zoned acreage in a community is taken by a new user. That user’s occupancy of the site will preclude some other industrial user’s occupancy. From the community’s perspective, the potential opportunity cost is the difference between the actual user of the site and some other “better” entity that cannot locate in the community due to lack of suitable industrial acreage.

Another example might include workforce limitations. For example, “Business X” may come to an area and want to build a large factory and hire a substantial portion of the available workforce at a certain wage rate. A year later “Business Y”, offering as many jobs but a higher wage rate, may not locate in the area because of the reduced available labor pool. Therefore, the opportunity cost to the community is the difference in wage rates between Business X and Business Y.

In the case of the Arkwright Summit Wind Farm project, it is difficult to identify or quantify any opportunity costs. The creation of a wind farm in this part of the County does not adversely impact future development in the traditional categories of land, labor, infrastructure and resources. The land proposed to be used in the wind farm project is primarily agricultural/open space and densely forested land that is not currently served by the infrastructure needed for commercial or industrial development. The Project will not create a large drain on the existing labor force, and will provide very high paying jobs to those employed. Although the wind farm is using a natural resource, wind is a renewable resource and clearly abundant in the County, so it is very unlikely that the Project would exclude other potential users of that resource elsewhere the County. Because of the above, we will exclude from our discussion these potential opportunity costs due to their low degree of probability.

## REFERENCES

Center for Governmental Research (2007) *Costs and Benefits of Noble Chateaugay and Belmont Windparks: Issues for County of Franklin IDA's Consideration*. Retrieved from [http://cgr.org/reports/07\\_R-1517\\_NobleWindParkFranklinCounty.pdf](http://cgr.org/reports/07_R-1517_NobleWindParkFranklinCounty.pdf).

Cushman & Wakefield (2006) *Impacts of The Marble River Wind Farm Project on Local Property Values*. Retrieved from [http://www.marbleriverwindfarm.com/pdfs/deis/appendix\\_m/DEIS%20Property%20Value%2003290620R1.pdf](http://www.marbleriverwindfarm.com/pdfs/deis/appendix_m/DEIS%20Property%20Value%2003290620R1.pdf).

ECONorthwest (2002) *Economic Impacts of Wind Power in Kittitas County*. Retrieved from <http://www.catenergy.com/pdf20files/Kittitas20Wind20final.pdf>.

Hoen, Ben (2006) *Impacts of Windmill Visibility on Property Values in Madison County, NY*. Retrieved from <http://www.realtor.org/library/library/fg509>.

Arkwright Summit (2008) *Draft Environmental Impact Statement*. Retrieved from <http://newgrangewind.com/>.

Klauk, Lloyd & Wilhem Inc (2007) *Influence of Wind Farm on Local Real Estate Value, Town of Belmont, Franklin County, New York*. Retrieved from <http://www.noblepower.com/our-windparks/Chateaugay/documents/NEP-ChateaugayDEIS-AppL-RevisedBellmontPropertyValueAnalysis.pdf>.

Renewable Energy Policy Project (2003) *The Effect of Wind Development on Local Property Values*. Retrieved from <http://nhsec.state.nh.us/2006-01/34.%20Property%20Value%20Studies%20-%20Bard%20-%20REPP.pdf>

Renewable Northwest Project (2004) *Windfall from the Wind Farm Sherman County, Oregon*. Retrieved from <http://www.rnp.org/Resources/Klondike%20Paper.pdf>.